



DEPARTMENT OF LABOR

Mine Safety and Health Administration

Petition for Modification of Application of Existing Mandatory Safety Standards

AGENCY: Mine Safety and Health Administration, Labor.

ACTION: Notice.

SUMMARY: This notice is a summary of a petition for modification submitted to the Mine Safety and Health Administration (MSHA) by the party listed below.

DATES: All comments on the petition must be received by MSHA's Office of Standards, Regulations, and Variances on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments identified by Docket No. MSHA-2023-0012 by any of the following methods:

1. *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments for MSHA-2023-0012.
2. *Fax:* 202-693-9441.
3. *Email:* petitioncomments@dol.gov
4. *Regular Mail or Hand Delivery:* MSHA, Office of Standards, Regulations, and Variances, 201 12th Street South, Suite 4E401, Arlington, Virginia 22202-5452.

Attention: S. Aromie Noe, Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk in Suite 4E401.

Individuals may inspect copies of the petition and comments during normal business hours at the address listed above. Before visiting MSHA in person, call 202-693-9455 to make an appointment, in keeping with the Department of Labor's COVID-19 policy. Special health precautions may be required.

FOR FURTHER INFORMATION CONTACT: S. Aromie Noe, Office of Standards, Regulations, and Variances at 202-693-9440 (voice), Petitionsformodification@dol.gov (email), or 202-693-9441 (fax). [These are not toll-free numbers.]

SUPPLEMENTARY INFORMATION: Section 101(c) of the Federal Mine Safety and Health Act of 1977 and Title 30 of the Code of Federal Regulations (CFR) part 44 govern the application, processing, and disposition of petitions for modification.

I. Background

Section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act) allows the mine operator or representative of miners to file a petition to modify the application of any mandatory safety standard to a coal or other mine if the Secretary of Labor determines that:

1. An alternative method of achieving the result of such standard exists which will at all times guarantee no less than the same measure of protection afforded the miners of such mine by such standard; or
2. The application of such standard to such mine will result in a diminution of safety to the miners in such mine.

In addition, sections 44.10 and 44.11 of 30 CFR establish the requirements for filing petitions for modification.

II. Petition for Modification

Docket Number: M-2023-007-C

Petitioner: Marfork Coal Company, LLC, P.O. Box 457, Whitesville, WV 25209

Mine: Glen Alum Tunnel Mine, MSHA ID No. 46-09375, located in Raleigh County, West Virginia.

Regulation Affected: 30 CFR 75.1700, Oil and gas wells.

Modification Request: The petitioner requests a modification of 30 CFR 75.1700 as it relates to oil and gas wells. Specifically, the petitioner is proposing to mine through or near (within the 300 feet diameter safety barrier) plugged oil or gas wells.

The petitioner states that:

- (a) The Glen Alum Tunnel Mine extracts coal from the Glen Alum Tunnel coal seam. The mine operates one continuous mining machine section producing coal. Future workplans include adding an additional continuous mining machine.
- (b) The mine will use a room and pillar method of mining.
- (c) In the reserve area of the mine, many oil and gas wells exist.

The petitioner proposes the following alternative method:

- (a) Prior to plugging an oil or gas well, the following procedures shall be followed:
 - (1) A diligent effort shall be made to clean the well to the original total depth. The mine operator shall contact the District Manager prior to stopping the operation to pull casing or clean out the total depth of the well.
 - (2) If this depth cannot be reached, and the total depth of the well is less than 4,000 feet, the operator shall completely clean out the well from the surface to at least 200 feet below the base of the lowest mineable coal seam, unless the District Manager requires cleaning to a greater depth based on the geological strata or pressure within the well.
 - (3) The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If the total depth of the well is 4,000 feet or greater, the operator shall completely clean out the well from the surface to at least 400 feet below the base of the lowest mineable coal seam. The operator shall remove all material from the entire diameter of the well, wall to wall. If the total depth of the well is unknown and there is no historical information, the mine operator must contact the District Manager before proceeding.
 - (4) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, a gamma log, a bond log, and deviation survey for determining the top, bottom, and thickness of all coal seams down to the lowest mineable coal seam, potential hydrocarbon producing strata, and the location for a bridge plug. In addition, a journal

shall be maintained describing: the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated, ripped, or left in place; any sections where casing was cut or milled; and other pertinent information concerning the cleaning and sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of the logs and provided to MSHA upon request.

- (5) When cleaning out the well as described in alternative method section (a), the operator shall make a diligent effort to remove all of the casing in the well. After the well is completely cleaned out and all the casing removed, the well shall be plugged to the total depth by pumping cement slurry and pressurizing to at least 200 pounds per square inch (psi). If the casing cannot be removed, it shall be cut, milled, perforated, or ripped at all mineable coal seam levels to facilitate the removal of any remaining casing in the coal seam by the mining equipment. Any casing which remains shall be perforated or ripped to permit the injection of cement into voids within and around the well.

- (6) All casing remaining at mineable coal seam levels shall be perforated or ripped at least every 5 feet from 10 feet below the coal seam to 10 feet above the coal seam.

Perforations or rips are required at least every 50 feet from 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the uppermost mineable coal seam. The mine operator shall take appropriate steps to ensure that the annulus between the casing and the well walls are filled with expanding (minimum 0.5 percent expansion upon setting) cement and contain no voids.

- (7) If it is not possible to remove all of the casing, the operator shall notify the District Manager before any other work is performed. If the well cannot be cleaned out or the casing removed, the operator shall prepare the well as described from the surface to at

least 200 feet below the base of the lowest mineable coal seam for wells 4,000 feet or greater, unless the District Manager requires cleaning out and removal of casing to a greater depth based on the geological strata or pressure within the well.

- (8) If the District Manager concludes that the completely cleaned out well is emitting excessive amounts of gas, the operator shall place a mechanical bridge plug in the well. It shall be placed in a competent stratum at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam, but above the top of the uppermost hydrocarbon producing stratum, unless the District Manager requires a greater distance based on the geological strata or the pressure within the well. The operator shall provide the District Manager with all information it possesses concerning the geological nature of the strata and the pressure of the well. If it is not possible to set a mechanical bridge plug, an appropriately sized packer may be used. The mine operator shall document what has been done to "kill the well" and plug the hydrocarbon producing strata. If the upper-most hydrocarbon producing stratum is within 300 feet of the base of the lowest minable coal seam, the operator shall properly place mechanical bridge plugs as described in alternative method section (a) to isolate the hydrocarbon producing stratum from the expanding cement plug. The operator shall place a minimum of 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the lowest mineable coal seam, unless the District Manager requires a greater distance based on the geological strata or the pressure within the well.

- (b) The following procedures shall be followed for plugging or re-plugging oil or gas wells to the surface after completely cleaning out the well as previously specified:

- (1) The operator shall pump expanding cement slurry down the well to form a plug which runs from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam (or lower if required by the District

Manager based on the geological strata or the pressure within the well) to the surface. The expanding cement will be placed in the well under a pressure of at least 200 psi. Portland cement or a lightweight cement mixture may be used to fill the area from 100 feet above the top of the uppermost mineable coal seam (or higher if required by the District Manager based on the geological strata or the pressure within the well) to the surface.

- (2) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well.

In the alternative, a 4 inch or larger diameter casing, set in cement, shall extend at least 36 inches above the ground level with the American Petroleum Institute (API) well number engraved or welded on the casing. When the hole cannot not be marked with a physical monument (e.g., prime farmland), high-resolution GPS coordinates (one-half meter resolution) shall be required.

- (c) The following procedures shall be followed for plugging or re-plugging oil and gas wells that are to be used as degasification boreholes after completely cleaning out the well as previously specified:

- (1) The operator shall set a cement plug in the well by pumping an expanding cement slurry down the tubing to provide at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) of expanding cement below the lowest mineable coal seam, unless the District Manager requires a greater depth based on the geological strata or the pressure within the well. The expanding cement will be placed in the well under a pressure of at least 200 psi. The top of the expanding cement shall extend at least 50 feet above the top of the coal seam being mined, unless the District Manager requires a greater distance based on the geological strata or the pressure within the well.

- (2) The operator shall securely grout into the bedrock of the upper portion of the degasification well a suitable casing to protect it. The remainder of the well may be cased or uncased.
- (3) The operator shall fit the top of the degasification casing with a wellhead equipped as required by the District Manager in the approved ventilation plan. Such equipment may include check valves, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.
- (4) Operation of the degasification well shall be addressed in the approved ventilation plan. This may include periodic tests of methane levels and limits on the minimum methane concentrations that may be extracted.
- (5) After the area of the coal mine that is degassed by a well is sealed or the coal mine is abandoned, the operator shall plug all degasification wells using the following procedures:
 - (i) The operator shall insert a tube to the bottom of the well or, if not possible, to at least 100 feet above the coal seam being mined. Any blockage must be removed to ensure that the tube can be inserted to this depth.
 - (ii) The operator shall set a cement plug in the well by pumping Portland cement or a lightweight cement mixture down the tubing until the well is filled to the surface.
 - (iii) The operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4 inch or larger casing, set in cement, shall extend at least 36 inches above the ground level with the API well number engraved or welded on the casing.

(d) The following provisions shall apply to all wells which the operator determines, and the MSHA District Manager agrees, cannot be completely cleaned out due to damage to the well caused by subsidence, caving, or other factors.

- (1) The operator shall drill a hole adjacent and parallel to the well to a depth of at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the lowest mineable coal seam, unless the District Manager requires a greater depth based on the geological strata or the pressure within the well.
- (2) The operator shall use a geophysical sensing device to locate any casing which may remain in the well.
- (3) If the well contains casings, the operator shall drill into the well from the parallel hole. From 10 feet below the coal seam to 10 feet above the coal seam, the operator shall perforate or rip all casings at intervals of at least every 5 feet. Beyond this distance, the operator shall perforate or rip at least every 50 feet from at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable coal seam up to 100 feet above the seam being mined, unless the District Manager requires a greater distance based on the geological strata or the pressure within the well. The operator shall fill the annulus between the casings and the well wall with expanding (minimum 0.5 percent expansion upon setting) cement and shall ensure that these areas contain no voids. If the operator, using a casing bond log, can demonstrate to the satisfaction of the District Manager that the annulus of the well is adequately sealed with cement, the operator shall not be required to perforate or rip the casing for that particular well or fill these areas with cement. When multiple casing and tubing strings are present in the coal horizon(s), any remaining casing shall be ripped or perforated and filled with expanding cement. An acceptable casing bond log for each casing and tubing string can be used in lieu of ripping or perforating multiple strings.

- (4) Where the operator determines, and the District Manager agrees, that there is insufficient casing in the well to allow the methods previously outlined to be used, the operator shall use a horizontal hydraulic fracturing technique to intercept the original well. From at least 200 feet (400 feet if the total well depth is 4,000 feet or greater) below the base of the lowest mineable seam to a point at least 50 feet above the seam being mined, the operator shall fracture in at least 6 places at intervals to be agree upon by the operator and the District Manager after considering the geological strata and the pressure within the well. The operator shall pump expanding cement into the fractured well in sufficient quantities and in a manner which fills all intercepted voids.
- (5) The operator shall prepare down-hole logs for each well. Logs shall consist of a caliper survey, gamma log, a bond log, and a deviation survey for determining the top, bottom, and thickness of all coal seams down to the lowest mineable coal seam, potential hydrocarbon producing strata, and the location of any existing bridge plug. The operator shall obtain the logs from the adjacent hole rather than the well if the condition of the well makes it impractical to insert the equipment necessary to obtain the log.
- (6) A journal shall be maintained describing: the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated, or ripped, or left in place; any sections where casing was cut or milled; and other pertinent information concerning sealing the well. Invoices, work-orders, and other records relating to all work on the well shall be maintained as part of this journal and provided to MSHA upon request.
- (7) After the operator has plugged the well, the operator shall plug the adjacent hole, from the bottom to the surface, with Portland cement or a lightweight cement mixture. The

operator shall embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 4 inch or larger casing, set in cement, shall extend at least 36 inches above the ground level. A combination of the methods outlined previously may have to be used in a single well, depending upon the conditions of the hole and the presence of casings. The operator and the District Manager shall discuss the nature of each hole and if the District Manager requires more than one method be utilized. The mine operator may submit an alternative plan to the District Manager for approval to use different methods to address wells that cannot be completely cleaned out. Additional documentation and certification by a registered petroleum engineer to support the proposed alternative methods shall be submitted if required by the District Manager.

- (e) The following procedures shall be followed after approval has been granted by the District Manager to mine within the safety barrier established by 30 CFR 75.1700 or to mine through a plugged or re-plugged well.
 - (1) A representative of the operator, a representative of the miners, the appropriate State agency, or the MSHA District Manager may request that a conference be conducted prior to intersecting through any plugged or re-plugged well. The party requesting the conference shall notify all other parties listed above within a reasonable time prior to the conference to provide opportunity for participation. The purpose of the conference shall be to review, evaluate, and accommodate any abnormal or unusual circumstance related to the condition of the well or surrounding strata when such conditions are encountered.
 - (2) The operator shall intersect a well on a shift approved by the District Manager. The operator shall notify the District Manager and the miners' representative in sufficient time prior to intersecting a well to provide an opportunity to have representatives present.

- (3) When using continuous mining methods, the operator shall install drilage sights at the last open crosscut near the place to be mined to ensure intersection of the well. The drilage sites shall not be more than 50 feet from the well.
- (4) When using longwall mining methods, distance markers shall be installed on 5-foot centers for a distance of 50 feet in advance of the well in the headgate entry and in the tailgate entry.
- (5) The operator shall ensure that fire-fighting equipment including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the well intersection (when either the conventional or continuous mining method is used) is available and operable during all well intersections. The fire hose shall be located in the last open crosscut of the entry or room. The operator shall maintain the water line to the belt conveyor tailpiece along with a sufficient amount of fire hose to reach the farthest point of penetration on the section. When the longwall mining method is used, a hose to the longwall water supply is sufficient.
- (6) The operator shall ensure that sufficient supplies of roof support and ventilation materials shall be available and located at the last open crosscut. In addition, emergency plugs and suitable sealing materials shall be available in the immediate area of the well intersection.
- (7) On the shift prior to intersecting the well, the operator shall test all equipment and check it for permissibility. Water sprays, water pressures, and water flow rates used for dust and spark suppression shall be examined and any deficiencies corrected.
- (8) The operator shall calibrate the methane monitor(s) on the longwall, continuous mining machine, or cutting machine and loading machine on the shift prior to intersecting the well.
- (9) When mining is in progress, the operator shall perform tests for methane with a handheld methane detector at least every 10 minutes from the time that mining with the continuous mining machine or longwall face is within 30 feet of the well until the

well is intersected. During the actual cutting process, no individual shall be allowed on the return side until the well intersection has been completed, and the area has been examined and declared safe. All workplace examinations on the return side of the shearer will be conducted while the shearer is idle. The operator's most current approved ventilation plan will be followed at all times unless the District Manager requires a greater air velocity for the intersect.

- (10) When using continuous or conventional mining methods, the working place shall be free from accumulations of coal dust and coal spillages, and rock dust shall be placed on the roof, rib, and floor to within 20 feet of the face when intersecting the well. On longwall sections, rock dusting shall be conducted and placed on the roof, rib, and floor up to both the headgate and tailgate gob.
- (11) When the well is intersected, the operator shall de-energize all equipment and thoroughly examine and determine the area is safe before permitting mining to resume.
- (12) After a well has been intersected and the working place determined to be safe, mining shall continue inby the well a sufficient distance to permit adequate ventilation around the area of the well.
- (13) When necessary, torches shall be used for inadequately or inaccurately cut or milled casings. No open flame shall be permitted in the area until adequate ventilation has been established around the well bore and methane levels of less than 1.0 percent are present in all areas that will be exposed to flames and sparks from the torch. The operator shall apply a thick layer of rock dust to the roof, face, floor, ribs and any exposed coal within 20 feet of the casing prior to any use of torches.
- (14) Non-sparking (brass) tools shall be located on the working section and shall be used exclusively to expose and examine cased wells.

- (15) No person shall be permitted in the area of the well intersection except those engaged in the operation, including company personnel, representatives of the miners, MSHA personnel, and personnel from the appropriate State agency.
- (16) The operator shall alert all personnel in the mine to the planned intersection of the well prior to their going underground if the planned intersection is to occur during their shift. This warning shall be repeated for all shifts until the well has been mined through.
- (17) The well intersection shall be under the direct supervision of a certified individual. Instructions concerning the well intersection shall be issued only by the certified individual in charge.
- (18) If the mine operator cannot find the well in the middle of the panel or a gate section misses the anticipated intersection, mining shall cease and the District Manager shall be notified.
- (f) A copy of the PDO shall be maintained at the mine and be available to the miners.
- (g) If the well is not plugged to the total depth of all mineable coal seams identified in the core hole logs, any coal seams beneath the lowest plug shall remain subject to the barrier requirements of 30 CFR 75.1700.
- (h) All necessary safety precautions and safe practices required by MSHA regulations and State regulatory agencies with jurisdiction over the plugging site shall be followed.
- (i) All miners involved in the plugging or re-plugging operations shall be trained on the contents of the PDO prior to starting the process.
- (j) Mechanical bridge plugs shall incorporate the best available technologies required or recognized by the State regulatory agency and/or oil and gas industry.
- (k) Within 30 days after the PDO becomes final, the operator shall submit proposed revisions for its approved 30 CFR part 48 training plan to the District Manager. These proposed revisions shall include initial and refresher training on compliance with the terms and conditions stated

in the PDO. The operator shall provide all miners involved in well intersection with training on the requirements of the PDO prior to mining within 150 feet of the next well intended to be mined through.

- (l) The responsible person required under 30 CFR 75.1501 shall be responsible for well intersection emergencies. The well intersection procedures shall be reviewed by the responsible person prior to any planned intersection.
- (m) Within 30 days after the PDO becomes final, the operator shall submit proposed revisions for its approved mine emergency evacuation and firefighting program of instruction required under 30 CFR 75.1502. The operator shall revise the program of instruction to include the hazards and evacuation procedures to be used for well intersections. All underground miners will be trained in this revised plan within 30 days of the submittal.

In support of the proposed alternative method, the petitioner submitted a map of well locations.

The petitioner asserts that the alternate method proposed will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

Song-ae Aromie Noe,

Director, Office of Standards, Regulations, and Variances.